



1D & 2D



Standard



Chip



CMOS



Power  
consumption



Laser  
aimer



Dual  
Interface



EasySet



Warranty  
2 Years



**N1-ER**  
OEM Scan Engines

## Features

### 6th Generation UIMG technology.

The N1-ER is armed with Newland's 6th generation UIMG scanning technology. Refined design, optimized accuracy, and increased speed, even on poor quality 1D and 2D barcodes are now at your fingertips.

### Extended Scan Range.

The N1-ER adjusts the focus to capture codes from a greater distance than standard scanning. It is perfect for scanning high racks in the warehouse or codes on items loaded onto high-based transport vehicles without having to climb aboard. You can also integrate N1-ER into devices so that vehicle operators can remain seated when scanning box and pallet labels. The extra distance is supported by the bright laser aiming dot to help the users line up the correct code.

### On-Screen Barcode Capture.

Newland continues their excellent track record and pioneering outlook to scanning barcodes displayed on-screen with the N1-ER. Whether the applications are at an extended range, or when screens are covered with

protective film or set to their lowest brightness level, on-screen barcode scanning is no challenge for this engine.

### Compact Design.

By decoding via an embedded chip instead of a separate processor, we've packed great depth of field, fast scanning and aiming technology into an incredibly small device. At only 23.8 x 10.5 x 7mm, it's ideal for integration into devices where space is a premium or if the design warrants a more inconspicuous scanner presence.

### Outstanding Power Efficiency.

The N1-ER aims, illuminates and decodes barcodes while drawing as little current from the host device as possible. It prolongs battery life compared to like-for-like scanners, as well as offers an eco-conscious solution.

### Multiple Interfaces.

Supporting both USB and TTL-232 interfaces the N1-ER gives integrators the choice between serial communication's tried and tested stability or USB's more dynamic data transmission rates.

## Suggested industries



Healthcare



Industrial



Manufacturing



7 mm

23.8 mm

10.5 mm

# N1-ER Technical specifications

## Data Capture

|                                 |  |
|---------------------------------|--|
| 1D                              | All major 1D symbologies, including Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, AIM128, Plessey, MSI-Plessey. |
| 2D                              | All major 2D symbologies, including PDF417, QR Code, Micro QR, Data Matrix, Aztec.   |
| Image Sensor                    | 640x480 CMOS   |
| Illumination                    | White LED  |
| Aiming                          | 650nm laser diode  |
| Resolution                      | 3mil(1D); 6.67mil(2D)  |
| Depth of Field EAN 13 (13mil)   | 105-680mm  |
| Depth of Field Code 39 (5mil)   | 120-260mm  |
| Depth of Field Code 39 (20mil)  | 65mm-800mm   |
| Depth of Field Code 128 (40mil) | 115mm-1400mm   |
| Depth of Field QR (15mil)       | 80-250mm   |

## Performance

|                          |             |
|--------------------------|-------------|
| Decoder                  | ASIC (0610) |
| Minimal Print Contrast   | 20%         |
| Scan Angle Roll          | 360°        |
| Scan Angle Pitch         | ±60°        |
| Scan Angle Skew          | ±60°        |
| Field of View Horizontal | 28°         |
| Field of View Vertical   | 21°         |

## Physical

|                            |                                   |
|----------------------------|-----------------------------------|
| Dimensions (mm)            | 23.8(W) x 10.5(D) x 7(H) mm (max) |
| Weight                     | 2g                                |
| Interfaces                 | TTL-232, USB                      |
| Input Voltage              | 3.3VDC±5%                         |
| Current @ 3.3VDC Operating | 176mA (typical)                   |
| Current @ 3.3VDC Standby   | 11.8mA                            |
| Power Consumption          | 581mW (typical)                   |

## Environmental

|                       |                              |
|-----------------------|------------------------------|
| Ambient Light         | 0~100,000lux (natural light) |
| Operating Temperature | -20°C to 60°C                |
| Storage Temperature   | -40°C to 70°C                |
| Humidity              | 5% to 95% (non-condensing)   |

## Accessories

|          |                                    |
|----------|------------------------------------|
| Optional | EVK3030-U, USB cable, RS-232 cable |
|----------|------------------------------------|

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Specifications are subject to change without notice

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# N1-ER Technical specifications

|                     |   |
|---------------------|---|
| Software            |   |
| Configuration Tools | EasySet                                   |
| Certifications      |   |
| Hardware            | FCC Part 15 Class B, CE EMC Class B, RoHS |
| Warranty            |   |
| Standard            | 2 years                                   |